

CLAIMS

What is claimed is:

1. A linear recliner assembly comprising:
 - a housing;
 - a pawl nonmovably fixed to said housing;
 - a recliner rod slidably supported by said housing and operable to selectively engage said pawl; and
 - a cam rotatably supported by said housing and movable between a first position forcing said recliner rod into engagement with said pawl and a second position enabling said recliner rod to fall from engagement with said pawl.
2. The linear recliner assembly of claim 1 further comprising:
 - a first plurality of teeth formed in a lower surface of said pawl; and
 - a second plurality of teeth formed in an upper surface of said recliner rod, said first and second pluralities of teeth selectively engaged to prohibit relative movement between said recliner rod and said pawl.
3. The linear recliner assembly of claim 1 further comprising a biasing mechanism biasing said cam in said first position.
4. The linear recliner assembly of claim 3 wherein said biasing mechanism is a coil spring.

5. The linear recliner assembly of claim 3 wherein said biasing mechanism comprises a rod slidably supported within said housing, biased by a spring, and in pivotal engagement with said cam.

6. A reclining seat assembly including a seat and a seat back in pivotal relationship to the seat, said reclining assembly further comprising:

a linear recliner assembly including:

a housing;

a pawl nonmovably fixed to said housing;

a recliner rod pivotally engaged with the seat back and slidably supported by said housing, said recliner rod selectively engaging said pawl; and

a cam rotatably supported by said housing and movable between a first position forcing said recliner rod into engagement with said pawl and a second position enabling said recliner rod to fall from engagement with said pawl;

a handle fixed for rotation with said cam to rotate said cam between said first and second positions.

7. The reclining seat assembly of claim 6 further comprising:

a first plurality of teeth formed in a lower surface of said pawl; and

a second plurality of teeth formed in an upper surface of said recliner rod, said first and second pluralities of teeth selectively engaged to prohibit relative movement between said recliner rod and said pawl.

8. The reclining seat assembly of claim 6 further comprising a biasing mechanism biasing said cam in said first position.

9. The reclining seat assembly of claim 8 wherein said biasing mechanism is a coil spring.

10. The reclining seat assembly of claim 8 wherein said biasing mechanism comprises a rod slidably supported within said housing, biased by a spring, and in pivotal engagement with said cam.

11. A linear recliner assembly comprising:
 - a housing;
 - a pawl nonmovably fixed to said housing;
 - a recliner rod slidably supported by said housing and movable between an engaged position and a disengaged position; and
 - a single cam rotatably supported by said housing and movable between a first position forcing said recliner rod into said engaged position and a second position allowing said recliner rod to fall into said disengaged position, said cam locking said recliner rod in said engaged position and supporting said recliner rod in said disengaged position.
12. The linear recliner assembly of claim 11 further comprising:
 - a first plurality of teeth formed in a lower surface of said pawl; and
 - a second plurality of teeth formed in an upper surface of said recliner rod, said first and second pluralities of teeth selectively engaged to prohibit relative movement between said recliner rod and said pawl.
13. The linear recliner assembly of claim 11 further comprising a biasing mechanism biasing said cam in said first position.
14. The linear recliner assembly of claim 13 wherein said biasing mechanism is a coil spring.

15. The linear recliner assembly of claim 13 wherein said biasing mechanism comprises a rod slidably supported within said housing, biased by a spring, and in pivotal engagement with said cam.

16. A reclining seat assembly including a seat and a seat back in pivotal relationship to the seat, said reclining assembly further comprising:

a linear recliner assembly including:

a housing;

a pawl nonmovably fixed to said housing;

a recliner rod slidably supported by said housing and movable between an engaged position and a disengaged position; and

a single cam rotatably supported by said housing and movable between a first position forcing said recliner rod into said engaged position and a second position allowing said recliner rod to fall into said disengaged position, said cam locking said recliner rod in said engaged position and supporting said recliner rod in said disengaged position; and

a handle fixed for rotation with said cam to rotate said cam between said first and second positions.

17. The reclining seat assembly of claim 16 further comprising:

a first plurality of teeth formed in a lower surface of said pawl; and

a second plurality of teeth formed in an upper surface of said recliner rod, said first and second pluralities of teeth selectively engaged to prohibit relative movement between said recliner rod and said pawl.

18. The reclining seat assembly of claim 16 further comprising a biasing mechanism biasing said cam in said first position.

19. The reclining seat assembly of claim 18 wherein said biasing mechanism is a coil spring.

20. The reclining seat assembly of claim 18 wherein said biasing mechanism comprises a rod slidably supported within said housing, biased by a spring, and in pivotal engagement with said cam.